

# ***Brachiaria decumbens* Stapf**

**Common name:** Pasto alambre, pasto amargo, pasto peludo

**Use:** Grazing

**Description:** Herbaceous perennial grass, semi-erect, with rhizomatous growth and pubescent leaves.

**Adaptation:** Good adaptation to low soil fertility and moderate drought conditions. Good recovery after grazing, and highly challenging to weeds.

**Limitations:** High susceptibility to spittlebug, does not grow well under poor drainage conditions.

**Productivity:** Until 6 tons of dry matter per hectare under good conditions.

**Nutritional value:** Intermediate level of digestibility, chemical composition and consumption. The crude protein content decreases sharply with the grass ages. Protein content of 8 to 10%, digestibility of 50 to 60%.





# ***Brachiaria* hybrid Caymán**

**Common name:** Yacaré

**Use:** Grazing, hay, and silage

**Description:** Perennial grass of stoloniferous, semi-decumbent and clumping growth, vigorous fitness and good tillering.

**Adaptation:** Good adaptation to medium soil fertility and would face waterlogging soil conditions during short periods. Resistant to spittelbug. Good recovery after grazing.

**Limitations:** Poor seed production, requires resting periods to allow an adequate regrowth.

**Productivity:** Until 25 tons of dry matter per hectare per year. It would increase the beef production from 1 to 2 kg per animal per day.

**Nutritional value:** Protein content of 12 to 15% and digestibility of 55 to 62%.





# ***Brachiaria* hybrid Mulato II**

**Common name:** Mulato II

**Use:** Grazing, hay, and silage.

**Description:** Perennial grass of stoloniferous, semi-decumbent and clumping growth, vigorous fitness and good tillering.

**Adaptation:** Good adaptation to medium soil fertility and it would face drought conditions during long periods. Resistant to spittelbug. Good recovery after grazing.

**Limitations:** Poor seed production, requires resting periods to allow an adequate regrowth.

**Productivity:** Until 25 tons of dry matter per hectare per year. It produces more than 25% of dry matter in comparison to other *Brachiarias*. It would increase the beef production from 1 to 2 kg per animal per day.

**Nutritional value:** Protein content of 12 to 15% and digestibility of 55 to 62%.





# ***Brachiaria brizantha* (Hochst. Ex A. Rich.) Stapf. cv. Toledo**

**Common name:** Brizantha

**Use:** Grazing, cut and carry, barrier

**Description:** Perennial grass, semi-erect to erect. It could form tillers and produce roots in the nodes.

**Adaptation:** It has a broad range of adaptation to different weather and soil conditions. Good recovery after grazing, highly challenging to weeds. Good association with legumes.

**Limitations:** Susceptibility to spittlebug, lower nutritional value than other *Brachiarias*.

**Productivity:** Annual yield of around 8 to 20 tons of dry matter depending on the conditions.

**Nutritive value:** Protein content of 7 to 14% and digestibility of 55 to 70%. In association with legumes it would produce gains until 750 g/animal/day.





# ***Brachiaria humidicola* (Rendle)**

## **Schweick. cv Llanero**

**Common name:** Llanero, dyctioneura.

**Use:** Grazing and erosion control.

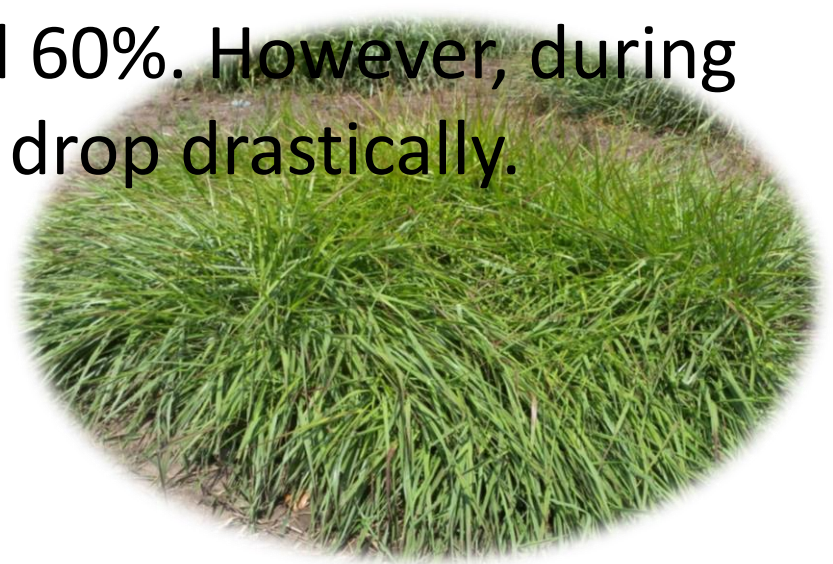
**Description:** Perennial semi-erect grass, with stoloniferous and rhizomatous growth.

**Adaptation:** Big rusticity. Good adaptation to both acid and infertile soils. Can tolerate long periods of drought and waterlogging. Presents high biological nitrification inhibition activity.

**Limitations:** Slow establishment, poor nutritional value, high seed latency.

**Productivity:** Annual yield of around 7 to 10 tons of dry matter per hectare.

**Nutritional value:** During wet season the protein content varies between 6 and 8% and the digestibility between 55 and 60%. However, during the dry season these values drop drastically.





# ***Panicum maximum Jacq.***

**Common name:** Pasto Guinea

**Use:** Grazing, cut and carry, barrier, hay, and silage

**Description:** Perennial grass. It can form tillers and has erect stems. It could reach 1.5 m of height.

**Adaptation:** Good adaptation to medium soil fertility. Grows very well under high temperatures and can not tolerate flooding soils.

**Limitations:** Bad challenge against weeds.

**Productivity:** It produces around 10 to 30 tons of dry matter per hectare per year. It would produce gains until 700 g/animal/day during wet season and until 170 g/animal/day during dry season.

**Nutritional value:** Protein content of 10 to 14% and digestibility of 60 to 70%.





# ***Desmodium heterocarpon* (L.) DC. subs. *Ovalifolium* (Prain) Ohashi**

**Common name:** Ovalifolium, desmodio, pega pega, amor seco.

**Use:** Grazing, coverage, grassland renovation and soil recovery.

**Description:** Perennial legume with creeping and stoloniferous growth. It could reach 1 m of height.

**Adaptation:** Good adaptation to a broad range of soil fertility, can grow in acid and waterlogged soils. Can not tolerate long periods of drought.

**Limitations:** Slow establishment.

**Productivity:** Produces 1 to 6 tons of dry matter per hectare per year. Under grazing it would obtain gains until 700 g/animal/day.

**Nutritional value:** Protein content of 13 to 21% and digestibility of 34 to 54%.





# ***Arachis pintoi* Krapov. & W.C. Grez.**

**Common name:** Maní forrajero.

**Use:** Coverage, grazing, soil protection, fertilizer, pigment to monogastrics and ornamental.

**Description:** Perennial legume with creeping and stoloniferous growth, forms a dense mat.

**Adaptation:** Good adaptation to a broad range of soil pH, can tolerate bad drainages and drought. It is suitable to grow in earrings.

**Limitations:** Difficulty to get seeds.

**Productivity:** In association with grasses would produce until 600 kg/hectare/year.

**Nutritional value:** Has a high nutritional value in terms of protein, digestibility, minerals, and animal consume. Protein content of 15 to 20% and digestibility of 65 to 75%.





# ***Stylosanthes guianensis* (Aubl.) Sw.**

**Common name:** Stylo, stylosantes.

**Use:** Grazing, cut and carry, hay, protein bank, and feed.

**Description:** Perennial herbaceous legume with erect growth, could reach until 1.5 m.

**Adaptation:** Has a good adaptation to acid and lowly fertile soils. Can tolerate fire and drought, but can not tolerate flooding.

**Limitations:** Low persistence to frequent cuts and grazing. Susceptible to anthracnose.

**Productivity:** Produces around 5 to 10 tons of dry matter per hectare per year. In association with grasses would obtain gains until 181 kg/animal/year.

**Nutritional value:** Protein content of 8 to 15% and digestibility of 48 to 59%.





# ***Clitoria ternatea* L.**

**Common name:** Conchita azul, lupita, papito, pito de parra.

**Use:** Protein bank, coverage, fertilizer, cut and carry, ornamental, and medicinal.

**Description:** Perennial herbaceous legume, erect and voluble. Deep blue flowers.

**Adaptation:** Good adaptation to a broad range of soils. Can tolerate drought, salinity and shade. Can not tolerate flooding.

**Limitations:** High persistence under grazing, could be an aggressive plant.

**Productivity:** Produces around 3 to 10 tons of dry matter per hectare per year. In association with grasses would obtain gains until 700g/animal/ day.

**Nutritional value:** Crude protein content of 17 to 20% and digestibility of 80%.





# *Pueraria phaseoloides* (Roxb.) Benth.

**Common name:** Kudzú

**Use:** Coverage, grazing, protein bank, fertilizer

**Description:** Perennial herbaceous plant, creeping growth, voluble and creeper.

**Adaptation:** Grows well in acid soils. Can survive after 5 months of drought. Tolerates bad drainages. Requires medium or high soil fertility.

**Limitations:** Low persistence under grazing.

**Productivity:** Produces around 5 to 6 tons per hectare per year. In association with grasses would produce until 700 g/animal/day. As fertilizer would contribute with around 100 kg of nitrogen per hectare per year.

**Nutritional value:** Protein content of 18 to 20% and digestibility of 60 to 70%.





# ***Centrosema molle* Mart. Ex Benth**

**Common name:** Centro, campanilla, pin-pin

**Use:** Protein bank, coverage, hay, silage and grazing.

**Description:** Perennial herbaceous legume, creeper, average height around 40 to 50 cm.

**Adaptation:** Good adaptation to low and medium soil fertility, low pH and P. Can still be green after 5 months of drought.

**Limitations:** Can not tolerate intensive grazing.

**Productivity:** Produces around 3 to 10 tons of dry matter per hectare per year. Under grazing would obtain gains until 600 g/animal/day.

**Nutrition value:** Protein content of 15 to 25% and digestibility of 50 to 65%.





# ***Canavalia brasiliensis* Mart. Ex Benth**

**Common name:** Frijol espada, frijol bravo

**Use:** Fertilizer, coverage, erosion control, cut and carry, grazing, feed, hay, and silage.

**Description:** Annual herbaceous legume, creeping and voluble growth habit.

**Adaptation:** It has a broad range of adaptation to different weather and soil conditions. Tolerates shade and can still be green after 5 months of drought.

**Limitations:** Its seeds can contain antinutritional compounds.

**Productivity:** Can produce until 8 tons of dry matter per hectare in a period of 3 to 5 months, allowing until 3 cuts per year.

**Nutritional value:** Protein content of 19 to 25% and digestibility higher than 80%.





# ***Leucaena leucosephala* (Lam.) de Wit**

**Common name:** Leucaena, aroma blanco

**Use:** Protein bank, cut and carry, fertilizer, agroforestry systems, feed, silage.

**Description:** Perennial tree of 3 to 10 m of height, compound leaves and flattened pods.

**Adaptation:** Needs soils of medium fertility. Does not tolerate acid soils, shade and flooding.

**Limitations:** Slow establishment.

**Productivity:** Produces between 7 and 25 tons of dry matter per hectare per year. In association with grasses would produce until 700 g/animal/ day.

**Nutritional value:** Protein content of 12 to 25% and digestibility of 65 to 58%.





# ***Desmodium velutinum* (Willd.) DC.**

**Common name:** Cadillo

**Use:** Cut and carry, protein bank, grazing, hay, fertilizer, and silage.

**Description:** Perennial shrubby plant of erect growth, reaches until 3 m of height.

**Adaptation:** Good adaptation to a broad range of soils. Can tolerate until 5 months of drought.

**Limitations:** Requires well management during the first stages to improve their persistence.

**Productivity:** Produces between 1.5 and 3 tons of dry matter per hectare per cut. There are not studies of production with animals, however, it is moderately accepted by cattle.

**Nutritional value:** Protein content of 16 to 27% and digestibility of 65 to 80%.





# *Leucaena diversifolia* (Schltdl.) Benth

**Common name:** Leucaena, guaje, quebrachillo

**Use:** Cut and carry, shade (to other crops), grazing, fertilizer, fences.

**Description:** Perennial shrubby plant of erect growth, can reach until 20 m of height.

**Adaptation:** Needs soils of medium fertility. Can tolerate short periods of flooding and drought.

**Limitations:** Slow establishment.

**Productivity:** Produces between 2 and 4 tons of dry matter per hectare per cut. There are not studies of production with animals, however, it is moderately accepted by cattle.

**Nutritional value:** Protein content of 20 to 25% and digestibility around 60%. Can contain antinutritional compounds.





# *Cratylia argentea* (Desv.) Kuntze

**Common name:** Cratylia

**Use:** Cut and carry, protein bank, feed, hay, and silage.

**Description:** Perennial shrubby plant of erect growth. It has beautiful lilac flowers.

**Adaptation:** Good adaptation to a broad range of soils, but needs good drainage. Can tolerate long periods of drought.

**Limitations:** Slow initial growth, can not tolerate flooding.

**Productivity:** In 8 weeks would produce until 5 tons of dry matter per hectare.

**Nutritional value:** Protein content of 18 to 30% and digestibility of 60 to 65%

